

## **ABSTRACT**

In an optical method for determining surface defects and/or material shortage on the neck ring (3) of a container having an axis of symmetry (X) comprises illuminating the surface (s) of the neck ring (3) of the container with an incident light beam, a uniform ring of light (C) is obtained that converges towards a point of convergence located on the axis of symmetry (X) of the container with a variable diameter (D) and/or variable width (E). The diameter (D) of the convergent ring of light (C) at a given value in relation to a desired mean angle of incidence ( $\alpha$ ) to illuminate the surface of the neck ring (3) of the container and/or the width (E) of the convergent uniform ring of light (C) at a given value in relation to the width (L) of surface of the neck ring (3) of the container are selected.